CLAIMS

1. A suspension subframe for a vehicle, said subframe comprising:

a plurality of metal tubes standardized for use in vehicle exhaust systems, said metal tubes affixed to each other; and

a structural foam material positioned within the metal tubes.

2. The apparatus of claim 1, wherein the metal tubes have a gauge of less than about 2 mm.

3. The apparatus of claim 2, wherein the metal tubes have a gauge between about 0.9 mm and about 1.8 mm

4. The apparatus of claim 3, wherein the metal tubes have about a 1.5 mm gauge.

5. The apparatus of claim 1, wherein the structural foam material is selected from the group of polyurethane-based foams and epoxy-based foams.

6. The apparatus of claim 5, wherein the structural foam material is an epoxy-based foam.

7. The apparatus of claim 1, wherein the structural foam material is localized at specific points in the tube.

8. A suspension subframe for a vehicle, said subframe comprising:

a plurality of metal tubes standardized for use in vehicle exhaust systems, each of said tubes defined by metal walls having a gauge of about 1.5 mm; and

an epoxy-based structural foam material positioned within the metal tubes, said structural foam material localized at predetermined areas in the tubes.

9. A method for making a suspension subframe for a vehicle comprising:

providing a plurality of metal tubes standardized for use in vehicle exhaust systems;

welding said metal tubes together in a desired shape; and

inserting a structural foam material into said tubes.

10. The method of claim 9, wherein the metal tubes provided have a gauge of less than about 2 mm.

11. The method of claim 10, wherein the metal tubes have a gauge between about 0.9 mm and about 1.8 mm.

12. The method of claim 11, wherein the metal tubes have a gauge of about 1.5 mm.

13. The method of claim 9, wherein the structural foam material further comprises an epoxy-based structural foam material.

14. The method of claim 13, wherein the insertion step further comprises the following steps:

inserting a structural foam cartridge into the metal tubes; and

allowing said structural foam cartridge to cure.

15. The method of claim 14, wherein the curing step requires an additional polymeric material to be inserted to promote curing.

16. The method of claim 13, wherein the insertion step is accomplished by spraying the structural foam material into the metal tubes.

17. The method of claim 16, wherein the spraying is done at specific, localized points within the metal tubes.

18. A method for making a suspension subframe for a vehicle, said method comprising the steps of:

providing a plurality of metal tubes, said metal tubes standardized for use in vehicle exhaust systems and having a gauge of about 1.5 mm;

welding said metal tubes together in a desired shape; and

inserting an epoxy-based structural foam material into said metal tubes.

19. The method of claim 18, said step of insertion comprising spraying the epoxy-based structural foam material into the metal tubes at specific, localized points.